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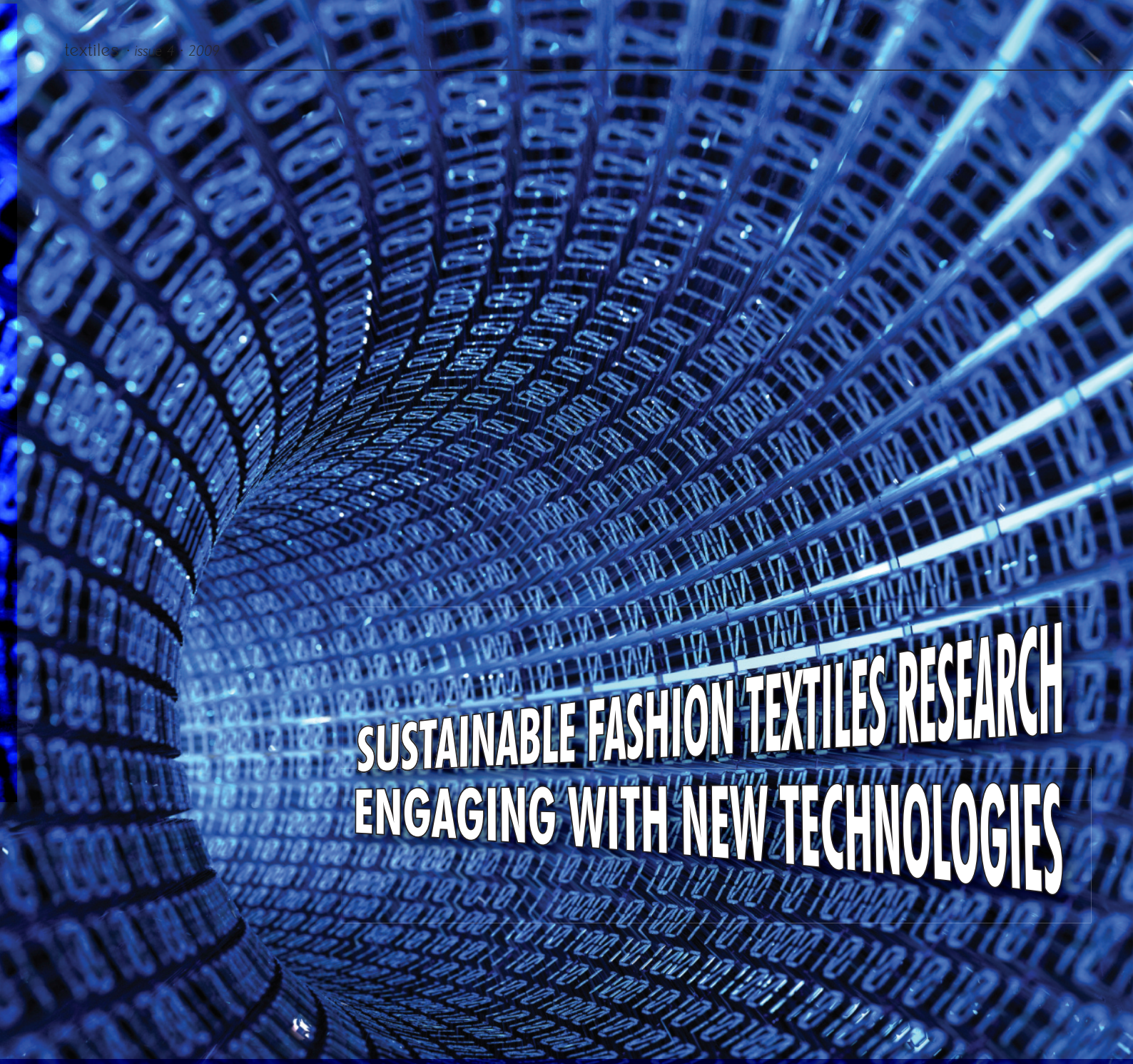
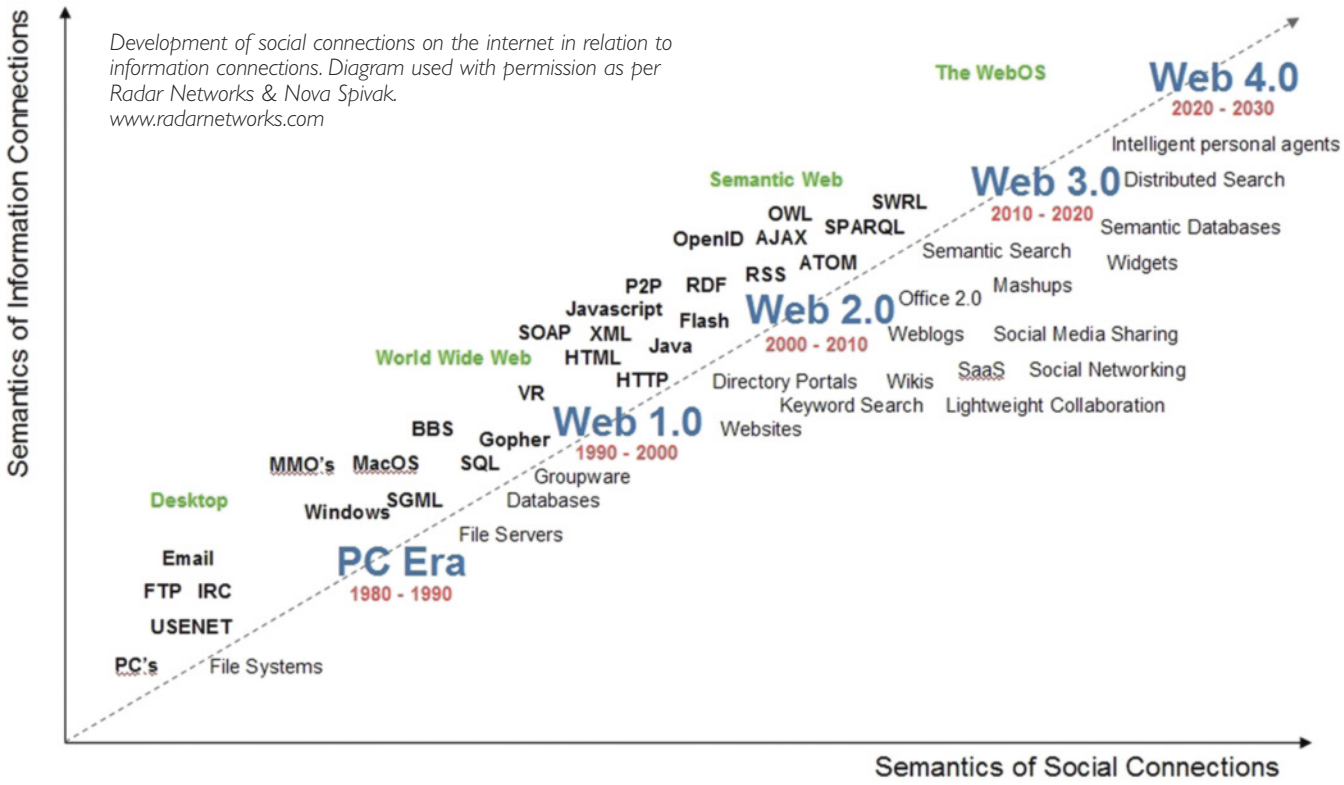


SUSTAINABLE FASHION TEXTILES RESEARCH ENGAGING WITH NEW TECHNOLOGIES

This article provides a discussion about how new technologies will enable fashion textiles research to be disseminated amongst a new generation of producers and consumers via interactive and web technologies. How appropriate are these methods for fashion textiles research? What are the advantages of these mediums and what will this mean for researchers, producers and consumers now and in the future, as the traditional platforms such as journal papers and conferences, become obsolete? Dr Joan Farrer RCA and Angie Finn from Auckland University of Technology, New Zealand review whether we can predict the future of communicating textile research by assessing the way in which research is being conducted with the use of electronic databases, the internet and with the emergence of electronic journals?



Development of social connections on the internet in relation to information connections. Diagram used with permission as per Radar Networks & Nova Spivak. www.radarnetworks.com

Towards the end of the Industrial Revolution research and development in products were communicated to the consumer by seemingly philanthropic methods. Bournville, Cadbury, Port Sunlight and Barnardos for instance were towns in the UK synonymous with the manufacturers or named charities. Houses, schools and community facilities were sponsored by the philanthropist; in fact huge sections of the population lived and understood these 'brands' on a daily basis. Whole neighbourhoods were named after factories, coal mines and their owners. This was a way to communicate developments and new products with users and consumers. Now we have the world of the World Wide Web (www) and its significance cannot be underestimated. Does this newer technology also have the ability to build trust between producers and the research audience?

Interaction with web technologies

In the 1990s users of the World Wide Web (Web 1.0) were forced to wait minutes to download a web site depending on dial up connection speed. Figure 2 illustrates the increase of user interaction (social connections) which is in tandem with advancements in the way in which we store, retrieve and transfer data (information connections). With these improvements we live in a world where "we want things now" and in research terms this means being able to access information quickly, even if this information is not from traditional scholarly and authoritative sources.

This new technology around internet information sites such as Google, Wikipedia, Facebook and Twitter, illustrates the danger involved in fast information without the benefit of the guardians of the peer review process. For instance: published journal papers and books, that may have taken years to develop, are less available than informal discussions about research on the web by engaged, but not necessarily expert, interaction. This is leading to an obsolescence of scholarly writings as a result of the unwillingness of readers to interact with the traditional methods of research (such as the library). This also reflects the move by publishers away from the text heavy, scholarly or literary tome towards the sound bite, easily digestible and beautiful coffee table book. This is a mirror image of what Web 2.0 may do to research futures.

Dark Satanics after Lowry' by Thomas Mossop, 2009. Used with permission from the artist.

As a consequence of this changing technology and user engagement, highest ranking web sites are interpreted as being the best and most informed. This is not necessarily the case as those with the knowledge of search criteria can manufacture a site specifically to rank highly. However, the danger for research is that what is on the internet is perceived to be truth. A particular example is the case of the Burmese Mountain Dog in 1992 which became a "must have" breed of dog but is completely fictitious (Refer to paper by Don E Descy available via www.springerlink.com).

Web 2.0 also represents the evolution of the web from a

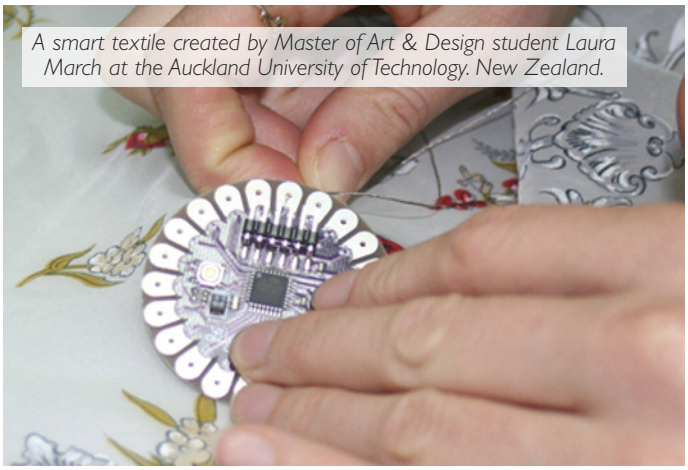
social tool to an integrated part of our society, commerce and the world. In Web 2.0 Social Media will be the future. Social Media is essentially about conversations online and while individuals have been early adopters, organisations have been slow to open up to this conversation. (Louise Dudley-Williams 2009). Web 2.0 examples Flickr, Napster and blogging support the human need for social interaction with technology, transforming broadcast media monologues (one to many) into social media dialogues (many to many). It supports the democratisation of knowledge and information (whether it is accurate or not) transforming people from content consumers into content producers (www.wikipedia.org/wiki/Social_media).

The technological revolution

The 'technological revolution' is underway in textiles. Affective computing will inform the fashion textile consumer, designer and business in an environmental, social as well as economically positive way for the benefit of all. Interdisciplinary and applied research collaboration is the new thinking in textiles, fashion and sustainability conveying global supply chain issues, best practice and developing consumer preference to brands that cater for innovative consumers.

Ubiquitous computing and digital systems are becoming embedded into clothing via smart fibre and fabric in the sustainable fashion and textile lifecycle. Future merchandise uses ubiquitous technology for social inclusion, aesthetics and information exchange, to support processes and to empower consumers, create 'value added' and trust in the brand which will be seen as a business imperative.

Smart textile technology will create stronger emotional connections between consumers, makers and products. Computing design will become more human-centric, individual and emotive. Smart and interactive clothing will connect us to each other, makers and users (www.perada.eu/documents/perada-newsletter-vol1-issue.pdf). The willingness of textiles researchers to engage with new technology is without question despite having been slow to become content producers on the internet.



A smart textile created by Master of Art & Design student Laura March at the Auckland University of Technology. New Zealand.

New technologies for researchers

Engaging with smart textiles technology is an innovation process in itself which helps creative people to think outside of what they are doing. This enables a combination of attributes to be communicated through a concept, or a symbol, that triggers a thought-process or emotion in the mind of an audience and creates influence and value. The new paradigm is that the product/idea is virtual and does not exist in reality.

Currently researchers question the scholarliness and rigorousness of the internet as a research medium. Perhaps we are missing an exciting opportunity to engage with the medium due to our inability to create a safety net through the installation of guardians of the 'research' brand.

Communicating R&D is a key tool for creating and sustaining competitive advantage, enabling an academic or a company to stand out from the competition, influence an investor or funder's decision in the designer's favour, or boost the company's financial performance and build customer loyalty. Communicating the methods, practices, and operations used to promote and sustain research, and certain categories of commercial textiles activity, are strategies to increase financial gain. In retail, visual display merchandising means maximising sales using product design, selection, packaging, pricing, and display that stimulates consumers to spend more and that advertise a particular event or organisation. How do we do the same for textiles research?

OLPC – One Laptop per Child. Low energy/Low Cost laptop developed for children in Africa. Image and more information available from http://laptop.org/en/laptop/index.shtml

The old 'dyed in the wool' industry has much to learn from youth, who are the future consumers, whose constant engagement with technology through films, games, animation and music leaves an indelible impression. These technologies can represent the sum of all valuable qualities of a product to the consumer, including textiles. Conversely, a lack of technological presence can serve to denote a certain low level, unattractive inferior quality or characteristic. Will this impression also apply to research where non technological presence will denote inferior research outcomes?

Conclusion

A solution to the issues discussed here can be found in establishing partnerships dovetailing the new generation of researchers, who are techno savvy, with more established, and experienced researchers who have skills and knowledge of the integrity of scholarly textiles research. The trade off of knowledge and skills between both collaborators is far greater than the sum of their individual parts. This will result in an authoritative research dissemination using interaction and web technologies. Without the development of such partnerships we risk losing the wealth of textiles history and knowledge to a new generation.

'By 2020 it is predicted that functional or intelligent textiles will represent 80% of the textile industry' (Financial Times, 2006). In tandem to that of the world's total population of 6.5 billion, 5.8 billion (90%) have little or no access to products or services many of us take for granted: in fact nearly half do not have regular access to food, clean water or shelter. (http://other90.cooperhewitt.org). This means that in real terms the internet and Web 2.0, rather than making textiles research more accessible, is likely to make it more elitist and rarified due to the polarisation of those who 'have' and those who 'have not' access to technology. As this is the case, it is an appropriate time to begin to develop a deeper engagement with these new technologies as a platform for textiles research.